Unit Report For 48TCED12-6

Project: 1 Stock 48TC RTUs 460-3 02/11/2015
Prepared By: 04:03PM

Unit Parameters

Unit Model:..... **48TCED12A2A6-0A0A0**
Unit Size:.....**12 (10 Tons)**
Volts-Phase-Hertz:..... **460-3-60**
Heating Type:.....**Gas**
Duct Cfg:..... **Vertical Supply / Vertical Return**
Medium Heat
Round Tube Plate Fin Coils

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**7' 4.125"**
Unit Width:.....**4' 11.5"**
Unit Height: .....**4' 1.375"**
*** Total Operating Weight: ..... **1116** lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Gas Line Size:..... **3/4**
Condensate Drain Line Size: **3/4**
Return Air Filter Type:.....**Throwaway**
Return Air Filter Quantity:..... **4**
Return Air Filter Size:.....**20 x 20 x 2**

Unit Configuration

Medium Static Option
Al/Cu - Al/Cu
Base Electromechanical Controls
Standard Packaging

Warranty Information

1-Year parts(std.)
5-Year compressor parts(std.)
10-Year heat exchanger - Aluminized(std.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
48TCED12A2A6-0A0A0	Rooftop Unit	1
Accessories		
CRRFCURB003A01	14-inch Tall Roof Curb	1

NOTES:
1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW

UNIT	OUTDOOR COIL TYPE	J	K	H
48TC-A08	RTPF	41 1/4 [1048]	33 [658]	15 7/8 [403]
48TC-A09	RTPF	49 3/8 [1253]	37 1/4 [946]	27 7/8 [708]
48TC-A12	RTPF	49 3/8 [1253]	37 1/4 [946]	15 7/8 [403]
48TC-D08	RTPF	41 1/4 [1048]	33 [658]	15 7/8 [403]
48TC-D09	RTPF	49 3/8 [1253]	37 1/4 [946]	15 7/8 [403]
48TC-D12	RTPF	49 3/8 [1253]	37 1/4 [946]	15 7/8 [403]
48TC-D08	MCHX	41 1/4 [1048]	33 [658]	23 [584.2]
48TC-D12	MCHX	49 3/8 [1253]	37 1/4 [946]	11 [279.4]

RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM)
MCHX - NOVATION (ALUM/ALUM)

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	CONNECTION SIZES
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2 1/2" [64] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [51] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	1/2"-14 NPT GAS CONNECTION 3/4"-14 NPT GAS CONNECTION
G	2 * [51] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART (FIELD INST)

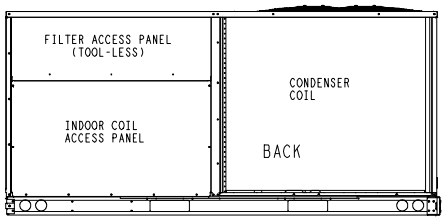
THESE HOLES REQUIRED FOR USE WITH ACCY KITS:
CRBTMPWR002A01: GAS THRU CURB
CRBTMPWR004A01: GAS THRU BASEPAN

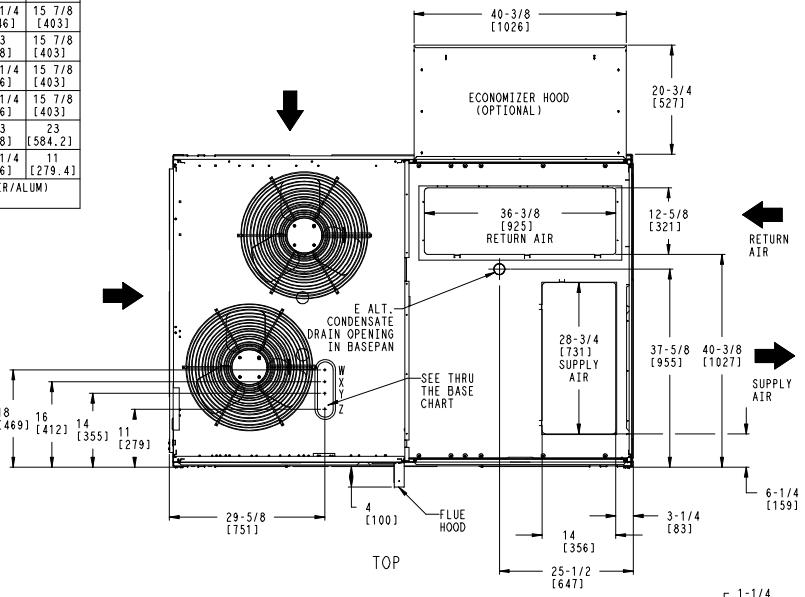
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	ACC.	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y	1 1/4" (002,004)	POWER	1 3/4" [44.4]
Z *	(004) 3/4" FPT	GAS	1 3/4" [44.4]
*	(002) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING. HOLE SIZE: 2" [50.8]		

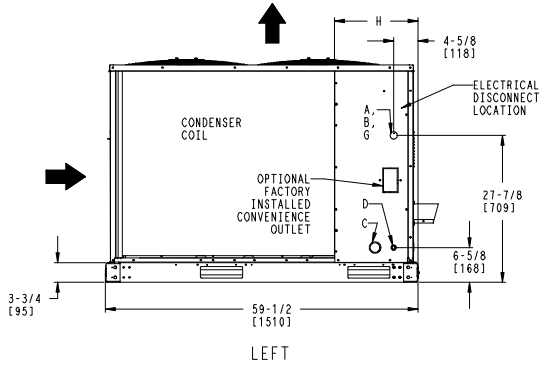
THRU-THE-BASE CHART (FIOP)

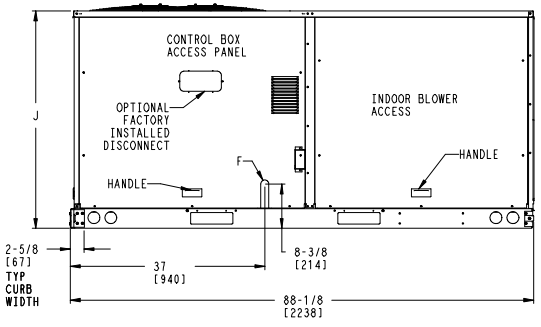
FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED. **

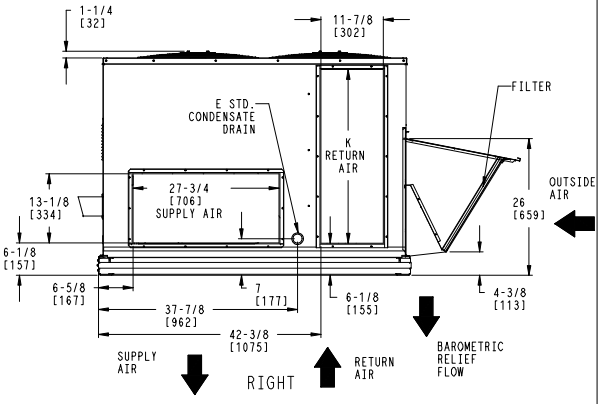
**	FOR BELOW LISTED MODELS, A FIELD SUPPLIED 1/2" ADAPTER IS REQUIRED BETWEEN BASE PAN FITTING AND GAS VALVE: 48HCD,S*08











SHEET	DATE	SUPERCEDES			REV
1 OF 2	03-08-10	11-24-08	48TC 08-12 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	48TM500985	F

UNIT	OUTDOOR COIL TYPE	STD. UNIT WEIGHT ***		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
		LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
48TC-A08	RTPF	780	354	178	81	158	72	209	95	236	107	41 1/2 [1054]	33 7/8 [860]	20 1/2 [521]
48TC-A09	RTPF	920	418	212	96	183	83	243	110	282	128	40 7/8 [1038]	34 [864]	23 1/8 [587]
48TC-A12	RTPF	930	422	216	98	196	89	247	112	272	123.5	42 [1067]	33 1/8 [841]	24 1/4 [616]
48TC-D08	RTPF	835	379	164	74.5	170	77.2	255	115.8	246	111.7	44 7/8 [1140]	35 5/8 [905]	19 3/8 [492]
48TC-D09	RTPF	930	422	228	103.5	187	85	232	105.3	283	128.5	39 3/4 [1010]	32 7/8 [835]	18 5/8 [473]
48TC-D12	RTPF	940	427	231	104.9	189	85.8	234	106.2	286	129.8	39 3/4 [1010]	33 [838]	18 1/2 [470]
48TC-D08	MCHX	805	365.5	160	72.6	153	69.5	240	109	260	118	43 [1092]	36 3/8 [924]	20 3/8 [517.7]
48TC-D12	MCHX	895	406.3	185	84	176	79.9	260	118	274	124.4	42 7/8 [1089]	35 1/2 [902]	22 7/8 [581]

RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM)
MCHX - NOVATION (ALUM/ALUM)

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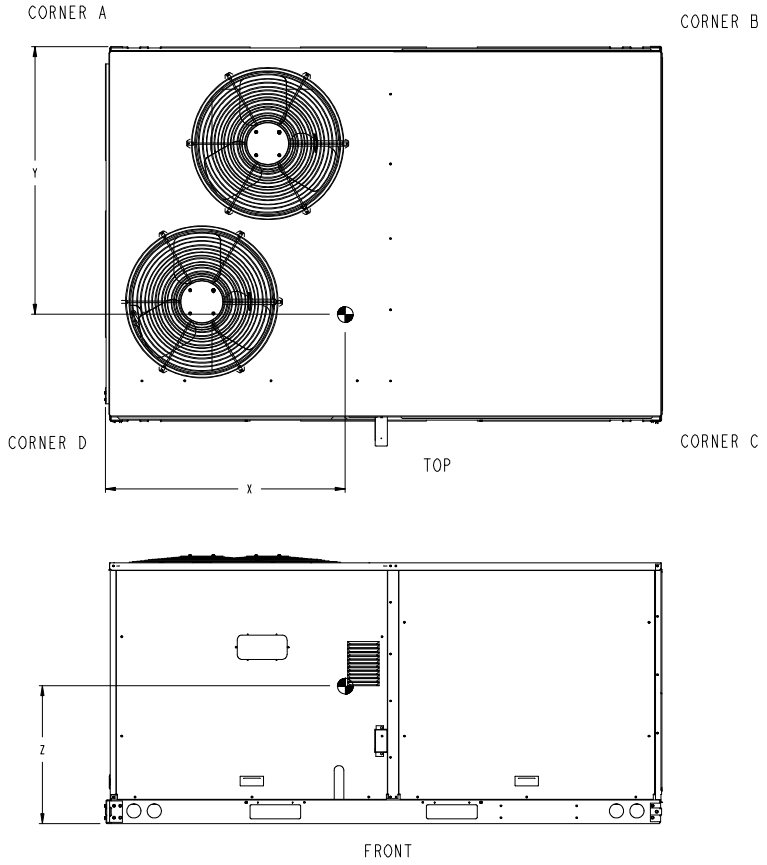
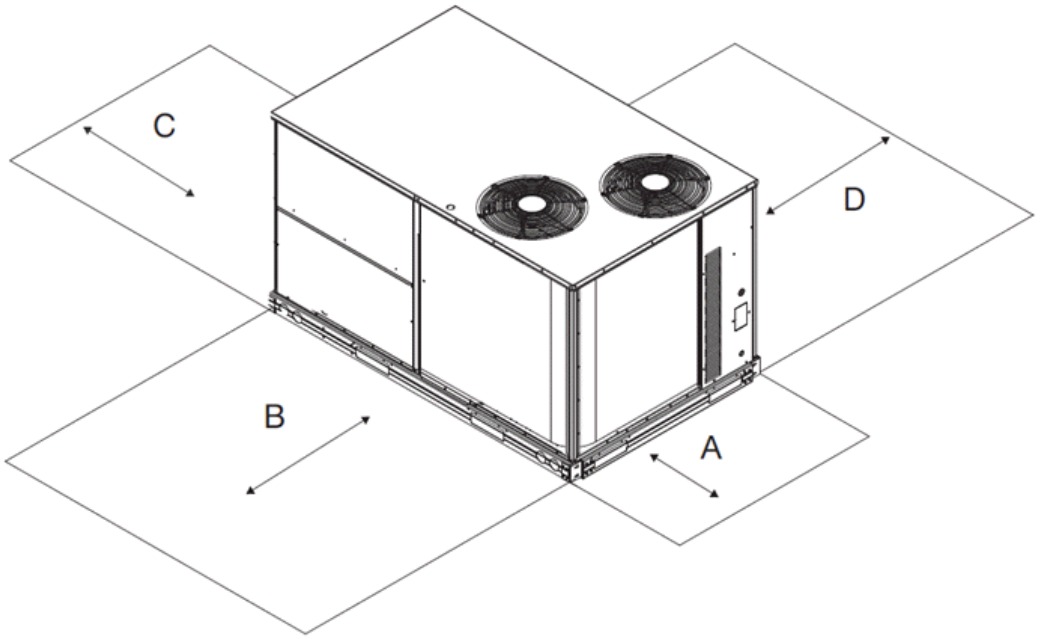
*** STANDARD UNIT WEIGHT IS WITH LOW GAS HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



SHEET	DATE	SUPERCEDES			REV
2 OF 2	03-08-10	11-24-08	48TC 08-12 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	48TM500985	F

Certified Drawing for 48TCED12-6

Service Clearance



C11247

LOCATION	DIMENSION	CONDITION
A	48-in (1219 mm)	• Unit disconnect is mounted on panel
	36-in (914 mm)	• If dimension-B is 12-in (305 mm)
	18-in (457 mm)	• No disconnect, convenience outlet option • Recommended service clearance (use electric screwdriver)
	12-in (305 mm)	• Minimum clearance (use manual ratchet screwdriver)
B	36-in (914 mm)	• Unit has economizer
	12-in (305 mm)	• If dimension-A is 36-in (914 mm)
	Special	• Check for sources of flue products within 10-ft of unit fresh air intake hood
C	36-in (914 mm)	• Side condensate drain is used
	18-in (457 mm)	• Minimum clearance
D	48-in (1219 mm)	• No flue discharge accessory installed, surface is combustible material
	42-in (1067 mm)	• Surface behind servicer is grounded (e.g., metal, masonry wall, another unit)
	36-in (914 mm)	• Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass)
	Special	• Check for adjacent units or building fresh air intakes within 10-ft of this unit's flue outlet

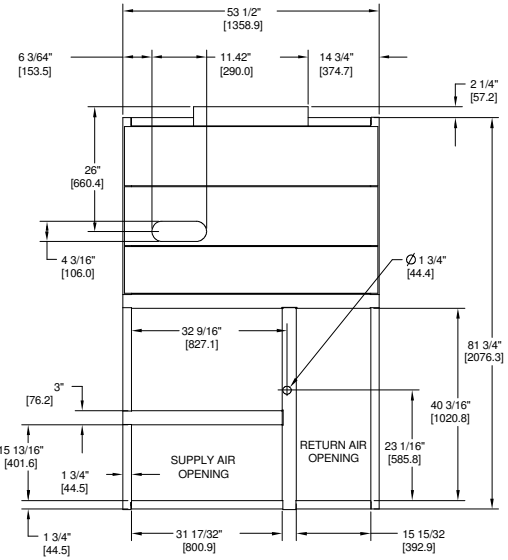
NOTE: Unit not designed to have overhead obstruction. Contact Application Engineering for guidance on any application planning overhead obstruction or vertical clearances.

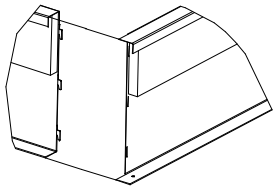
Chassis 3-4a

ROOF CURB ACCESSORY #	A
CRRFCURB003A01	14" [356]
CRRFCURB004A01	24" [610]

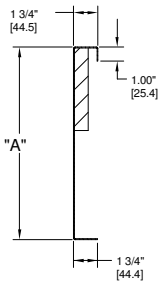
NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 25.4 [1"] THK. POLYURETHANE FOAM, 44.5 [1-3/4] # DENSITY.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOFCURB: 18 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).
6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.
7. DIRECTION OF AIR FLOW.
8. CONNECTOR PACKAGE CRBTMPWR002A01 IS FOR THRU-THE-CURB GAS TYPE PACKAGE CRBTMPWR004A01 IS FOR THRU-THE-BOTTOM TYPE GAS CONNECTIONS.

CONNECTOR PKG. ACC.	GAS CONNECTION TYPE	GAS FITTING	POWER WIRING FITTING	CONTROL WIRING FITTING	ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR
CRBTMPWR002A01	THRU THE CURB	3/4" [19] NPT	1 1/4" [31.7] NPT	1/2" [12.7] NPT	1/2" [12.7] NPT
CRBTMPWR004A01	THRU THE BOTTOM				

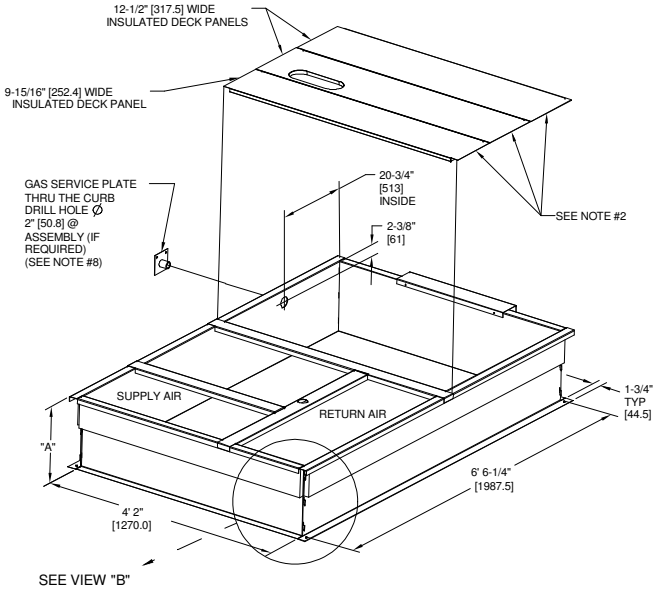




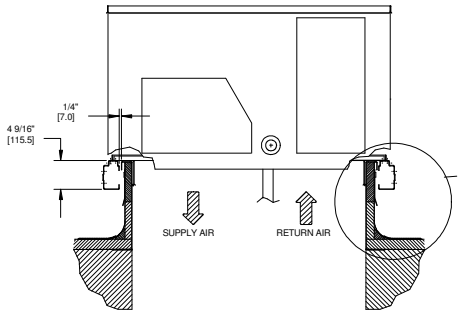
VIEW "B"
CORNER DETAIL

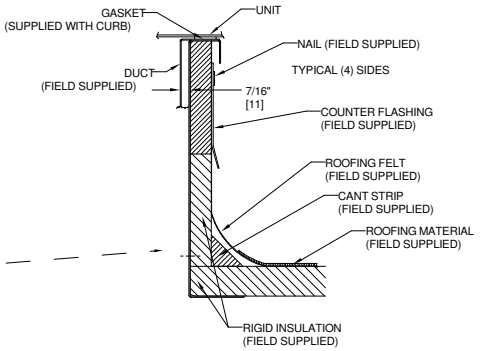


SECTION THRU SIDE


12-1/2" [317.5] WIDE INSULATED DECK PANELS
9-15/16" [252.4] WIDE INSULATED DECK PANEL
GAS SERVICE PLATE THRU THE CURB DRILL HOLE Ø 2" [50.8] @ ASSEMBLY (IF REQUIRED) (SEE NOTE #8)
20-3/4" [513] INSIDE
2-3/8" [61]
SEE NOTE #2
SUPPLY AIR
RETURN AIR
"A"
1-3/4" TYP [44.5]
6' 6-1/4" [1987.5]
4' 2" [1270.0]
SEE VIEW "B"

CERTIFIED DRAWING





REV	REVISION RECORD	DATE	BY	CHK'D	APP'D	ECN NO.
C	6' 61/4" WAS 6' 7 1/6", 4'2" WAS 4' 2 13/16"; 18 GA WAS 16 GA.; 15 13/16" WAS 15 15/16"; NAIL FIELD SUPPLIED WAS WITH CURB	4/22/13	MMC	-	-	1067898

DRAWING RELEASE LEVEL:	PRODUCTION
THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 1 DEC ± - 2 DEC ± - 3 DEC ± - ANG ± -
MATERIAL	- - -
AUTHORIZATION NUMBER	1029120
ENGINEERING / MANUFACTURING	- / -
ENGINEERING REQUIREMENTS	T-005, Y-002
DRAFTER / CHECKER	MMC 12/16/09 / -
WEIGHT:	-
SURFACE FINISH / MFG/PURCH	- / PURCH
MODEL (INTERNAL USE ONLY)	-

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TITLE: CURB ASY, ROOF

SIZE	DRAWING NUMBER	REV
D	50HJ405012 SHEET 5 OF 5	C

NEXT DRAWING	SCALE	DISTRIBUTION
-	N/A	-

Part Number:48TCED12A2A6-0A0A0

ARI EER:	**11.10**	
IEER:	**11.8**	

Base Unit Dimensions

Unit Length:	**88.1**	in
Unit Width:	**59.5**	in
Unit Height:	**49.4**	in

Operating Weight

Base Unit Weight:	**940**	lb
Medium Heat:	**18**	lb
Medium Static Option:	**15**	lb
Accessories		
14-inch Tall Roof Curb:	**143**	lb
Total Operating Weight:	**1116**	lb

Unit

Unit Voltage-Phase-Hertz:	**460-3-60**	
Air Discharge:	**Vertical**	
Fan Drive Type:	**Belt**	
Actual Airflow:	**4000**	CFM
Site Altitude:	**0**	ft

Cooling Performance

Condenser Entering Air DB:	**95.0**	F
Evaporator Entering Air DB:	**80.0**	F
Evaporator Entering Air WB:	**67.0**	F
Entering Air Enthalpy:	**31.44**	BTU/lb
Evaporator Leaving Air DB:	**57.7**	F
Evaporator Leaving Air WB:	**57.2**	F
Evaporator Leaving Air Enthalpy:	**24.54**	BTU/lb
Gross Cooling Capacity:	**124.10**	MBH
Gross Sensible Capacity:	**96.20**	MBH
Compressor Power Input:	**8.90**	kW
Coil Bypass Factor:	**0.046**	

Heating Performance

Heating Airflow:	**4000**	CFM
Entering Air Temp:	**70.0**	F
Leaving Air Temp:	**112.5**	F
Gas Input Capacity:	**180.0** / **224.0**	MBH
Gas Heating Capacity:	**183.68**	MBH
Temperature Rise:	**42.5**	F
NOTE:	**Second Stage**	

Supply Fan

External Static Pressure:	**0.75**	in wg
Fan RPM:	**929**	
Fan Power:	**2.35**	BHP
NOTE:	**Selected IFM RPM Range: 838 - 1084**	

Electrical Data (Before July 30, 2012)

- Minimum Voltage: **414**
- Maximum Voltage: **506**
- Compressor #1 RLA: **7.7**
- Compressor #1 LRA: **52**
- Compressor #2 RLA: **7.7**
- Compressor #2 LRA: **52**
- Outdoor Fan Motor Qty: **2**
- Outdoor Fan FLA (ea): **0.8**
- Indoor Fan Motor Type: **MED**
- Indoor Fan Motor FLA: **4.4**
- Combustion Fan Motor FLA (ea): **0.25**
- Power Supply MCA: **23.3**
- Power Supply MOCP (Fuse or HACR): **30**
- Min. Unit Disconnect FLA: **25**
- Min. Unit Disconnect LRA: **145**
- Electrical Convenience Outlet: **None**

Electrical Data (July 30, 2012 and Beyond)

- Indoor Fan Motor FLA: **5.3**
- Power Supply MCA: **25**
- Power Supply MOCP: **30**
- Disconnect Size FLA: **26**
- Disconnect Size LRA: **151**

July 30th and beyond units can be identified by serial number 3112XXXXXXXXX and higher

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	97.7	94.4	89.0
125 Hz	93.8	87.0	83.1
250 Hz	80.4	71.7	80.5
500 Hz	74.4	67.4	78.5
1000 Hz	70.4	65.0	75.5
2000 Hz	67.7	60.7	71.6
4000 Hz	70.9	60.8	69.6
8000 Hz	72.2	59.3	69.3
A-Weighted	81.7	74.8	82.0